

Abstract

The high-pressure pump has at least one pump element (18), with a pump piston (20) which is guided displaceably in a cylinder bore (28) of a housing part (22) of the high-pressure pump and is driven in a reciprocating motion and defines a pump work chamber (30) in the cylinder bore (28), into which chamber fuel is aspirated via an inlet valve (34) in the intake stroke of the pump piston (20). The inlet valve (34) has a pistonlike valve member (56), which with a sealing face (60) cooperates with a valve seat (52) for controlling the communication of the pump work chamber (30) with the fuel inlet (32). The valve member (56) is disposed with a head (58), on which the sealing face (60) is embodied, in the pump work chamber (30) and protrudes out of the pump work chamber (30) with a shaft (62) adjoining the head (58). The valve seat (52) is formed in the housing part (22) at a transition from the cylinder bore (28) to a bore (50) of smaller diameter adjoining the cylinder bore. With its shaft (62), the valve member (56) protrudes through the bore (50) into a region (54) of the housing part (22) remote from the pump work chamber (30), in which region a closing spring (64) is disposed that engages the shaft (62) of the valve member (56).